



Micro Commercial Components  
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# SDB101 THRU SDB107

## Features

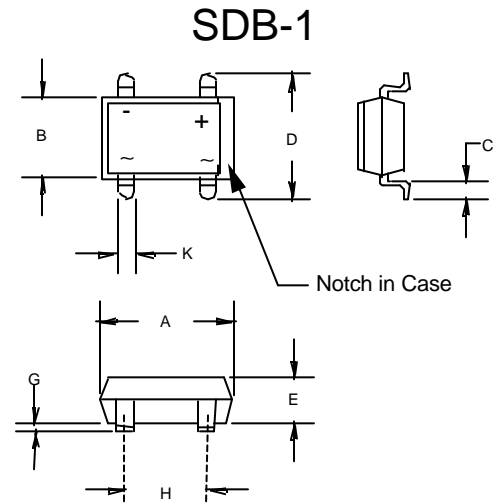
- Surface Mount Package
- Glass Passivated Diode Construction
- Moisture Resistant Epoxy Case
- High Surge Current Capability

## 1 Amp Single Phase Glass Passivated Bridge Rectifier 50 to 1000 Volts

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SDB101	---	50V	35V	50V
SDB102	---	100V	70V	100V
SDB103	---	200V	140V	200V
SDB104	---	400V	280V	400V
SDB105	---	600V	420V	600V
SDB106	---	800V	560V	800V
SDB107	---	1000V	700V	1000V



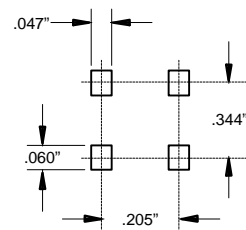
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.320	.335	8.13	8.50	
B	.245	.255	6.20	6.50	
C	.040	.060	1.02	1.52	
D	.386	.404	9.80	10.3	
E	.120	.130	3.05	3.30	
G	.002	.008	0.05	0.20	
H	.195	.205	5.00	5.20	
K	.040	.047	1.02	1.20	TYP

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1 A	$T_A = 40^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 0.5mA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	36ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	$C_J$	25pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

\*Pulse Test: Pulse Width 300 $\mu\text{sec}$ , Duty Cycle 1%

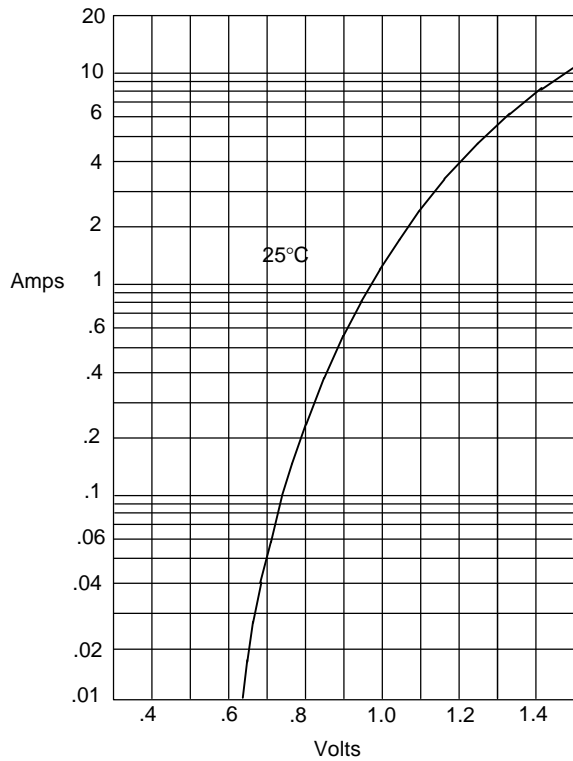
## Suggested Solder Pad Layout



# SDB101 thru SDB107

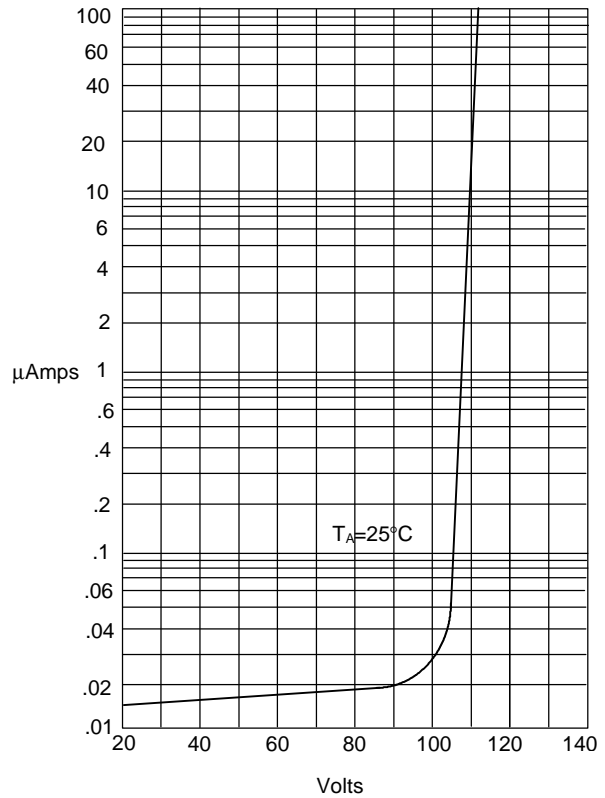


Figure 1  
Typical Forward Characteristics



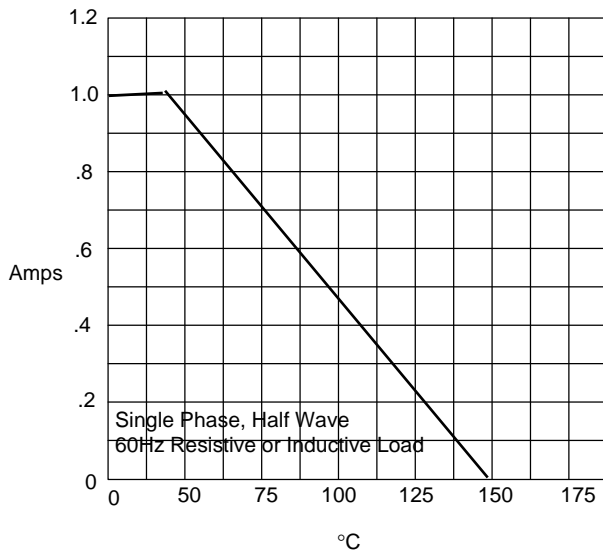
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



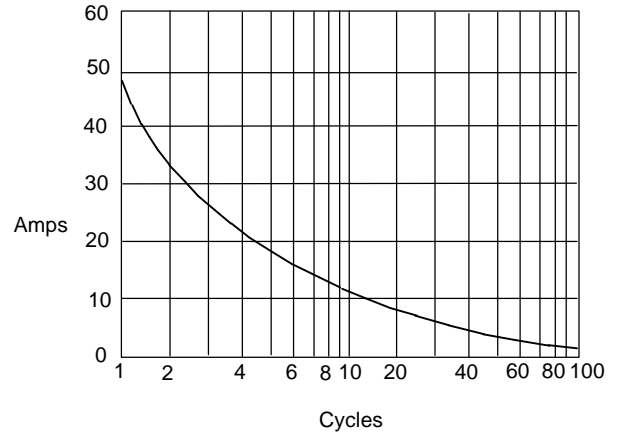
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles